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CEREBRAL HEMORRHAGE.

THE second volume of MM. Rilliet and Barthez's Treatise on the Diseases of Children, contains a very valuable essay on cerebral hemorrhage in children, a subject that has not received all the attention which it deserves, since many peculiarities distinguish the different forms of this disease in the child, from the same forms in the adult. Hemorrhage may occur in all situations within the cranium; as between the skull and dura mater, between the dura mater and arachnoid, into the cavity of the arachnoid, into the tissue of the pia mater; or into the substance of the brain, or the cavity of the ventricles. Of all these forms the most frequent, and from its frequency the most important, is the hemorrhage into the cavity of the arachnoid. It has nevertheless been overlooked by many writers, and but slightly noticed by others; probably in some instances owing to the fact that the effused blood undergoes changes which assimilate it in appearance to false membrane, for which it has been mistaken by some observers. MM. Rilliet and Barthez base their remarks on twenty observations, seventeen of which came under their own notice, while for the particulars of the remaining three, they are indebted to a friend. From an examination of these cases it appears, that pure, unchanged blood, is seldom found in the cavity of the arachnoid; it usually undergoes rapid alterations; the serum separating from the crassamentum, while the latter becomes by degrees converted into a thin, elastic, false membrane, which sometimes resembles the arachnoid; at other times closely resembles a fibrous membrane. The first form in which the clot is found is that of a dark-red, almost black, coagulum, of varying extent, usually thicker at the centre than the circumference, adherent to the arachnoid (almost always to its parietal layer), but easily detached from it, and leaving the serous membrane, with which it had been in contact, smooth, polished, and unaltered. Sometimes there is but one clot; at other times there are several; in either case the edges often extend into a thin, yellow, or transparent false membrane; so thin indeed that at first sight its edges cannot be distinguished, and it might be confounded with the arachnoid, and lead to the supposition that the effusion of blood had taken place between the arachnoid and the dura mater, if it were not found that the clot and false membrane are removed together. This continuity of substance between the clot and false membrane points out the

common origin of the two, and warrants the conclusion that the latter is identical with the former; its apparent difference being merely the result of the absorption of the coloring matter of the blood. This is most clearly seen to be the case whenever portions of coagulum are interspersed through different parts of the false membrane. Clots of a deep-red color, a thick very lacerable membrane of a reddish-yellow color, and infiltrated with serum, and a thin, more transparent, and less colored false membrane, then, make up one continuous layer. It often happens that in the course of time, the thin, delicate, false membrane grows opaque and resisting, and, assuming a pearly lustre, altogether loses its resemblance to the arachnoid, but presents instead considerable similarity to the dura mater. This change is probably brought about by the deposition and subsequent alteration of successive layers of blood; at least MM. Rilliet and Barthez have found membranes of this kind presenting a distinctly-stratified structure in the adult, though they have not met with any well-marked specimen of it in the child. Clots and these false membranes for the most part coexist, and are found usually on the convex surface of the brain, sometimes on its plane surface also, but never on that alone. They are generally present on both hemispheres, and do not occur on one side more frequently than on the other. Sometimes they are perfectly dry, but in a majority of cases the cavity of the arachnoid contains some fluid, which varies much in color. This fluid is seldom present in any large quantity, and the cases in which it is abundant are those of very young children, in whom the ossification of the skull is incomplete. In one instance of this kind, the arachnoid cavity contained nearly a pint, in another, nearly a quart, of fluid, and such an occurrence constitutes one form of chronic hydrocephalus.

The symptoms of the affection are extremely obscure, except when the effusion of fluid gives rise to hydrocephalus, when diagnosis is aided by the sensible enlargement of the head. In this case, however, though important, it is often very difficult to distinguish between chronic hydrocephalus arising from other causes and that which proceeds from sanguineous effusion, since the hemorrhage may occur at different times, and the enlargement of the head may consequently take place gradually. The symptoms of ordinary chronic hydrocephalus develop themselves more slowly than those which result from meningeal apoplexy, and it will likewise help diagnosis if further observation should substantiate the authors' statement, that meningeal apoplexy never occurs in children more than two years old, while chronic hydrocephalus from other causes is by no means rare above that age.

Hemorrhage into the substance of the brain, so frequent an occurrence in the old subject, loses much of its importance in the child. It does not happen half as often as hemorrhage into the cavity of the arachnoid, and is of comparatively small moment, being generally a secondary phenomenon, supervening in the course of some disease which would in itself prove fatal to life, and taking place only a few days before death. Sometimes, too, it is completely latent, and the morbid anatomist is the first to discover the existence of a lesion, which had escaped the observa-

tion of the practitioner. It may occur as capillary apoplexy, or a circumscribed extravasation of blood may take place; but it is seldom that either form exists uncomplicated with tubercular deposit, or meningitis, or some other disease of the brain. Its symptoms when it occurs in the idiopathic form are most various and uncertain, and altogether unlike those which characterize apoplexy in the adult; while apoplectic symptoms have existed in some instances during life, where a *post-mortem* examination has failed to discover any trace of effusion of blood. In the secondary form, too, the symptoms are not more decisive.

Perhaps we cannot go further in the differential diagnosis of the various forms of cerebral hemorrhage, than the mere statement that convulsive symptoms more frequently attend hemorrhage into the membranes, and inflammatory symptoms hemorrhage into the substance of the brain. The diagnosis of cerebral hemorrhage from other affections of the brain is scarcely more easy; for the convulsive form may be confounded with idiopathic convulsions or with those dependent on the presence of cerebral tubercles; the inflammatory form with certain cases of softening of the brain and encephalitis or meningitis; when attended with paralysis that symptom may be referred to softening of the brain, and the hydrocephalus which sometimes results from it may be confounded with ordinary chronic hydrocephalus of the ventricles of the brain.

Among the causes of cerebral hemorrhage there are scarcely any more influential than obstruction to the circulation, however produced. Hence compression of the superior vena cava by enlarged bronchial glands, or of any of the large venous trunks by enlargement of some of the abdominal viscera, has a strong tendency to induce it. Sometimes it is the result of disease of the sinuses of the dura mater, at other times it follows the injudicious repulsion of eruptions on the scalp. Occasionally it occurs suddenly, and in children in perfect health; but usually it is associated with a debilitated state of the system, and is very often connected with tubercle, the deposit of which in the brain suffices in many cases for its production without the occurrence of any other cause.—*British and Foreign Medical Review*.

WOUNDED JOINTS.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I send you the following cases of wounded joints, which you are at liberty to publish or not, as you see fit.

I.—April 27th, 1830. S. A. Esq., was thrown from his waggon, in consequence of his horse taking fright and turning short around, which threw the body of the waggon from the fore axle. A heavy seat fell upon the left ankle, striking it upon the outer side, breaking the fibula into three pieces, and forcing the lower end of the tibia entirely through the integuments, on the inner side, shattering the lower end of the malleolus considerably, and completely exposing the internal surfaces of the joint. The wound, through which the extremity of the tibia projected, was five inches

in length. In addition to this sufficiently formidable wound, the left elbow was dislocated, and the lower part of the back a good deal bruised. He was immediately lifted into a chaise, and carried to his house, about a mile distant. He was an intelligent man, about 44 years of age, rather fleshy; of a scrofulous habit, having a scrofulous abscess in the sternum, which had discharged a little for many years. He was also afflicted with a polypus in the nose. The patient insisted that I should amputate the leg; but I determined to attempt to save it. The parts were placed in apposition, some fragments of the edge of the malleolus were removed, lint and strips of plaster applied to the wound, the limb placed upon pillows, and kept wet with spirit and water. I now adapted a thick splint of bass wood to the outer side of the leg. This splint was concave on the surface next to the leg, and contained a cup-shaped cavity to receive the malleolus. Its lower end projected about an inch and a half below the bottom of the foot. This end was cut into the form of a tenon, two inches in width, and four lines in thickness. A piece of wood was then formed into a shape somewhat resembling the sole of a shoe, half an inch in thickness, containing a mortise near its outer edge to receive the tenon of the splint. A pin passed through the tenon below the sole, and kept it firmly in its place. Three straps nailed to the outer surface of the splint, served to secure it to the leg, and a roller confined the foot to the sole. This simple contrivance gave perfect support to the foot, and fixed it steadily at a proper angle with the leg. The patient was put upon a diet of gruel, and Epsom salts, which was continued for thirty days. As soon as the elbow was so far recovered that he could use the arm, I lifted the leg from the bed, and by the aid of his hands and the other leg, he moved himself from the bed into a chair, and the bed was well made up. This was repeated daily, and contributed very much to his comfort.

In about two months the wound was so far healed, that Mr. A. got upon his crutches; several small portions of bone exfoliated from the lower edge of the malleolus. In about three months gentle flexion of the joint was attempted. The patient being a man of firmness and resolution, aided by his own will the efforts of the surgeon, and by steady perseverance, regained at least two thirds the natural motion of the joints. In the following April, he was able to walk three miles at a time, with but a slight halt in his gait, and to labor in the field several hours at a time.

This case may teach us not hastily to despair of saving a limb, however severely a joint may be wounded. The intelligence and firmness of the patient, together with an abundant supply of all necessary means and appliances, doubtless contributed to the favorable result.

The following circumstance is mentioned as a matter of curiosity. At the time of the accident, the patient was much annoyed by a soft polypus in the nose, which had been removed two years before, by the forceps, but had grown again. Under the influence of the spare diet, and confinement, it shrunk away so as to give him little or no inconvenience. After he resumed his ordinary diet, and went into the open air, it grew again, and troubled him as before.

II.—On 23d June, 1843, was called to H. Allen, aged 7 years, and of delicate constitution. Twenty-four hours before, he had placed his left knee upon a chair, in which a relative had just laid a woollen garment, which she had been mending with a large needle, which she had left sticking upon the garment. As he threw his weight upon his knee, the needle entered it near the inner edge of the patella, passing a little obliquely just under its edge, and penetrated the cartilage covering the internal condyle of the femur, and broke—leaving about three fourths of an inch sticking in the cartilage. The father of the lad had examined the knee very carefully, and could not discover the fragment of the needle, which was the reason he had not called me sooner. The joint could not be moved without excruciating pain, was slightly swollen, and in the neighborhood of the puncture very tender to the touch. On a critical examination, I was confident I could feel the needle, about half an inch from the puncture in the integument. I immediately cut down upon it, and was fortunate enough to find it and seize it with the forceps. It was firmly fixed in the cartilage, having penetrated it about half an inch. There was considerable synovial fluid discharged. The wound was covered with adhesive plaster, and cloths dipped in cold water applied, and a pillow placed under the knee.

The next day I found considerable swelling and inflammation of the joint. He had been kept awake by pain, which was very severe, and there was a high degree of constitutional irritation. Fomentations were applied to the knee, and suitable means adopted to allay the constitutional irritation. The swelling, however, continued to increase, and extended up to the groin. The whole thigh became exceedingly tender and painful. On the fifth day, the cavity of the joint was greatly distended with fluid, and the mind of the patient was wandering. I now made a free opening into the joint, and discharged at least four ounces of bloody serum and synovial fluid. This gave him great and immediate relief. From this time the constitutional disturbance began to subside. The swelling gradually diminished, and under the use of leeches and poultices, the inflammation of the joint abated. In about four weeks, the joint, having been kept in a fixed position, had become incapable of voluntary motion. The leg was partially flexed upon the thigh, the muscles contracted, and the whole limb greatly wasted. Under the use of friction, and force gently applied, motion was gradually restored, and in about two months he began to move by the aid of a crutch. In about four weeks longer, he threw aside his crutch, and was able to run about, and attend school. The recovery was perfect.

This case illustrates the danger of punctured wounds to joints. It shows also the benefit of evacuating collections of fluid in the cavities of joints, under certain circumstances. When the distension, pain and constitutional irritation are great, if the fluid can be rapidly evacuated, and the orifice immediately closed up from the air, there is probably less danger than in leaving it to be absorbed. In this case I drew the integument to one side, as far as practicable, before making the opening.

After the fluid was discharged, the internal orifice was covered by the skin and a strip of plaster was applied.

Under the most favorable circumstances, the opening into the cavity of a large joint is a dangerous affair, and I do not envy the surgeon who finds himself under the necessity of doing it; but here, as in many surgical cases, a bold and decided course is often more successful than a timid and temporizing one.

Gloucester, June, 1844.

CAUSE OF COLOR IN THE HUMAN FAMILY.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—Agreeably to your request, I send you my observations on the cause of color, as it appears in the different varieties of the human race. In so doing, it is with some diffidence I appear before the scientific readers of your Journal, and particularly as the idea I shall advance is one that was suggested to my mind, as a deduction from certain facts that had already been discovered, and not one that I have seen brought forward by any writer with whom I am acquainted; saving that, as a general observation, most persons attribute the cause to the climate, without pointing out either the why or the wherefore—while, on the other hand, many, distinguished in the literary and scientific world, have attributed the cause to some freak of nature, a *lusus naturæ*, or accidental circumstance, or a direct interposition of the Deity.

In casting our eye at the lower animals, we find that they are all fitted for the climate and the circumstances under which they are placed. We have elephants covered with hair, and those that are not; we have the black and polar bear; the rabbit, changing the color of his fur in winter and summer; we have the eider covered with down, and birds whose feathers change, or do not at times afford so warm a covering. Then, again, the lower animals are fitted for the kind of life they lead; the camel and the reindeer could not change places; each is adapted to the place and latitude where it exists. And shall man be less cared for than they? shall he be the only being on the earth, in whose formation a lack of wisdom is displayed? Is he defectively made? Or is it left to chance to determine his color? Or is there a constant and direct agency at work that moulds the man, and gives him the color that is best fitted for him, under the circumstances in which he is placed? Judging from analogy, and the care taken of the lower animals, we must come to the conclusion that the latter is the case, that there was but one father of the human race, and that we can see in the varieties of climate on our globe, a sufficient cause why men should differ, and differ as widely as they do. The circumstances and the mode of life of no two nations are precisely alike, and the consequence is, a nice observer can distinguish the natives of one from those of the other, let their complexion be what it may. And should not the diversity of climate produce a like result? As a general fact, we find it does. The change of color is

gradual, from the equator to the temperate zones. The Moor is lighter than the Ethiopian, the Spaniard than the Moor, the Frenchman than the Spaniard, and the German than the Frenchman; making, as will be perceived, with some slight exceptions, a gradual succession of changes, from the intensely black to the purest white, as you recede from the equator to the frigid zone.

The cause to which I would attribute the difference in the color of the different races of men, if I may so speak, is purely chemical; it is by the chemical action of the sun's rays that man is made black, in order to preserve the body of an equal temperature, thereby preserving it in health and strength, and adapting it for the circumstances under which it is placed. No one, who has made any observation on the subject, but must have marked the difference between an individual brought up in the shade, and one exposed to the rays of the sun, even in our climate. The farmer, who goes out and exposes himself to the sun, does not put on the same fair exterior that he does who is confined within doors; in fact, the part exposed will differ from that not so.

It is a well-ascertained fact, that black substances transmit heat much faster than white ones. Water placed in a black vessel, before the fire, will boil much faster than in one that is bright; a piece of black cloth, laid upon the snow, will sink down much quicker than one that is white. Dr. Howard, of England, constructed a differential thermometer, by which he ascertained the comparative difference in the time it took to cool water placed in a tin vessel, six inches cube, when coated over by different substances. Having placed it in a line of the axis of a concave mirror, he placed one of the bulbs of his differential thermometer in its focus, and the following is a general view of the results. Lamp black, 100 deg.; writing paper, 98; rosin, 96; crown glass, 96; China ink, 98; red lead, 80; clean lead, 19; iron polished, 15; zinc plate, 12; gold, silver, copper, 12. That is, the side of the tube that was covered with lamp black, when turned towards the thermometer, raised it 100 degrees, in the same time that it raised it 12 when the side that was covered with copper, zinc, silver and gold was turned towards it. Similar results were obtained by Leslie and Rumford, in a similar manner. Vessels, of similar shapes and capacities, but of different materials, were filled with hot liquid, and their rates of refrigeration noticed. A blackened tin globe cooled a certain number of degrees in 80 minutes, whilst a bright one took nearly double the time, or 156 minutes. A naked brass cylinder in 55 minutes cooled 10 degrees, while its fellow, cased in linen, was 36; minutes in cooling the same quantity.

Now it is well known that the heat of the body is about 98 degrees, and that it cannot be raised or lowered much without injuring its different functions. It is also known that the temperature of the atmosphere, at or near the equator, is between 80 and 90 degs. for the most part of the year, seldom rising above or falling much below; consequently, there is but 8 or 20 degrees difference between the heat of the body and the surrounding atmosphere. It is also known by every one, that by exercise the heat of the body is raised, and consequently, if it had not an easy

passage to escape, it would have, when there was so little difference between it and the temperature of the air, a tendency to increase, in such a manner as to produce disease and death.

As this may not be perfectly clear, I will state that among a variety of experiments made by a Mr. Cheruel, on tallow or fat, he found it was composed for the most part of two principles, an oily substance that remained fluid at the ordinary temperature of the atmosphere, and another fatty substance, much less fusible; that one of these substances melts at about 42 degs., the other at 100 degs. One of these he named stearine, and the other elain, from the two Greek words "stear," fat—"elain," oil. In determining the melting point of two portions of fat, taken from different portions of the body, he found them to differ, and the variations to take place in different portions of stearine and elain. He found, also, a *difference in the melting point* of fat, taken from animals of the *same species*. When portions of fat of different sheep were melted separately at 122 degs., in some specimens, the thermometer descended to 98 degs. 5', and rose again to 102 degs.; while in others it descended to 104 degs. and rose to 106 degs. The thermometer plunged in the fat of an ox, melted at 122 degs., descended to 98 degs. 5', and rose again to 102 degs. Requiring, it will be perceived, a degree of heat equal to 122 degs. to melt the fatty portion of the system, while it would remain fluid at 102 to 106 degs.

In the combinations of these two substances, we see how beautifully they are adapted to keep the body, for its ease and comfort, lubricated and pliable; and it is probable if the one should be melted, and the other congealed, the functions of the body would with difficulty be carried on; and, as I before remarked, exercise producing heat, we see why fleshy people cannot endure so much in a warm day, as those that are spare, and also the necessity there is for the emission of heat from the body, in a climate the heat of which approaches so near to that of the melting point of a portion of our system; and, also, why in the more northern latitudes it should be the reverse.

As a further illustration of this subject, I would observe it has been calculated, by physiologists, that the lungs and skin throw off, during twenty-four hours, from twenty-five to thirty-two ounces of vapor, and that every ounce of vapor thus thrown off, contains 1000 degs. of heat; consequently there are from 25,000 to 32,000 degrees of heat, that escapes in the above time. Liebig says, in his late work, it requires 34,000 degrees of heat to be generated in the human body, to keep it at the temperature of 98 degs. for twenty-four hours—a degree of heat, if concentrated at one time, on one point, nearly five times greater than that of red-hot iron. What would be the effect of retaining such a degree of heat in the system, can be easily imagined.

Now, as the time it takes for heat to pass from one medium to another, is as the difference of the degrees of temperature between the two media, and the facility with which it passes any obstructing substance (that is, the greater difference there is, between the two media, and as the obstructing substance approaches to black, the shorter the time taken to

throw off the excess, and the reverse), consequently, when one substance possesses 100 degrees of heat, and another 50 degrees, and they are placed in contact, they will in time, if there is no heat escapes in any other way, become of an average temperature, that is, 75 degrees; but it will take double the length of time for the last $12\frac{1}{2}$ degrees to escape, that it did for the first $12\frac{1}{2}$; that is, the temperature of each will become $62\frac{1}{2}$ and $87\frac{1}{2}$, in half the time that $62\frac{1}{2}$ will become 75, and $87\frac{1}{2}$ be reduced to 75. And, again, as the heated substance is surrounded by a black or white coating, so will the facility of the transmission of the heat be accelerated or retarded; the black accelerating, the white retarding it. Consequently, it will be at once perceived, that when the temperature of the atmosphere approaches so near to that of the human body, and it is so important that all the functions of the frame, for its health, ease and convenience should be carried on under a certain temperature, how admirably adapted is the variety of color observable in the human family, under different latitudes, to effect these objects; and as the laws of nature now are, these objects could not be effected in any other manner, so far as we are yet able to learn.

A common mistake has been made on this subject by many, who, knowing that black transmits heat easier than white, have been unable to account for the black skin in warm latitudes; forgetting, all the time, that the body is warmer than the surrounding atmosphere, and within itself is constantly generating heat, and consequently requires an easy transmission from its surface to keep it in a proper temperature. We consequently never hear of a black man receiving a *coup de soleil*, as is often the case with the white; neither do we hear of the skin of the dark man being scorched and blistered by the sun's rays. But no sooner does a white man expose himself to its influence, than his skin peels, a new one is formed, and the man is tanned. It should also be remembered, we put on clothing not to keep the cold out, but to keep in the heat, or, in very hot climates, we put it on to keep out the heat, and we find the Negro, in choosing the white, has chosen the most appropriate.

But this law, that our bodies should adapt themselves to the various circumstances under which they are placed, deserves our attention. There is something called a living principle, which has as yet eluded, and probably ever will, all observation, and which has a tendency to preserve life in spite of the various causes that would destroy it. For instance, if a man uses his hand, instead of wearing out, as an inanimate machine would do, by use, the hand grows harder and firmer, and by exercise is better able to perform the work to which we would apply it, let that work be light or heavy. And what farmer is there who goes to his work in the fields in the hot months of July and August, that does not show the effects of his exposure, and come back from his employment with a darker skin than he had when he went? It would seem as if light, by changing the skin dark, or what, perhaps, would be nearer the truth, by causing the skin to secrete, as in the black man it does, a black fluid between the scarf and the true skin, or by changing the chemical nature of the substance between the scarf and true skin, and thereby forming a

different-shaped particle that composes the substance here deposited, prepares it for the wants of the body, and consequently the stronger the light and heat, the darker does the body become.

In this connection, I do not mean to say, that the black man, after residing at the North, or the white man, after residing at the South, although the skin may retain its original color, at least in a degree, may not experience inconvenience by exchanging their situations; because, as I said before, the body in some measure adapts itself to the circumstances under which it is placed.

Dr. Ure, a distinguished writer and chemist, of England, says, "evaporation and rarefaction are grand agents employed by nature, to temper the excessive heats of the torrid zone." Again, "the equilibrium of animal temperature is maintained by a copious discharge of vapor from the lungs and skin. The suppression of the exhalations is a common cause of many formidable diseases, among these fevers take the lead. The ardor of the body in this case of suppressed perspiration, sometimes exceeds the standard of health 6 or 7 degrees. The direct and natural means of allaying this morbid temperature, were first systematically enjoined by Dr. Currie, of Liverpool. He showed that the dashing or effusion of cold water on the skin of a fever patient has most salutary effects, when the heat is above 98; and when there is no sensitiveness of chilliness or moisture on the surface." Arguing, undoubtedly, as he might, that as the whites in the southern latitude were more subject to fevers than the blacks, and that this might be owing to the different degrees of facility with which the heat was conducted from the body, and as evaporation had a tendency to lower the temperature of substances from which it should take place, so, by applying cold water immediately to the skin, he could effect, by artificial means, what nature did by hers. Professor Silliman, in one of his late lectures in Boston, alluded to the same provision of nature. Evaporation from the body of the white man, in the torrid zones, is what helps preserve the body in a state of equilibrium and of health; while the evaporation of vapor and the easy transmission of heat through the black skin, combined, preserve the equilibrium and health of the black man, and by these means he is doubly guarded.

It may be objected to my position, if the color of the skin is owing to the climate, why are the Indians of this country, in these northern latitudes, black or red? Why are they not as white as the European? Why are not the Esquimaux, and the inhabitants of Terra del Fuego, white? While we may not know the particular reasons that have caused them to retain a dark skin, we do know that while there may be colored people at the North, there is no native race of white people within the tropics, saving the Albino Negroes—a fact well worthy of consideration. But the reasons may be that the Indians had not long inhabited this country before its discovery by Columbus, and, also, it may be the race that were in possession came from the South, and, as it has been observed, it takes much longer for a colored skin to turn white in our northern latitudes, than it does for the white to turn black in the torrid zone—the power of the sun having a greater influence upon the system, than its comparative want of influence here.

It is said that a colony from Portugal, who went to reside in Africa, without amalgamating with the natives became black after a few generations; and with regard to our colored population at the north, though it might take many generations before they become perfectly white, yet we doubt if many are born with that extremely dark hue that is the characteristic of those born under the equator. We know that vegetables very soon change from white to green if placed in the sun, but the green never changes to white when put in the shade. A number of individual cases of gradual change of color in the healthy African, in northern latitudes, are on record. One case of partial change occurred in my native town, in a young man by the name of Croyden Chesley.

I cannot, therefore, but think that it is the influence of the sun's rays upon the surface of our bodies, when they are exposed to it, or the absence of these rays, that produces the varieties of color; and owing to circumstances and favorable causes, the skin is made to change from one color to another. It is noticeable, that those white varieties, among others that are black, when the race is admitted to be the same, occur in northern latitudes, or in the neighborhood of forests or mountainous regions, where the heat may not be supposed to be so great as it is around the desert of Sahara in Africa.

There is another answer to the question, and it may be conclusive. We of the white race, in the northern latitudes, have from necessity been clothed and housed, our bodies have been for the most part shielded from the sun, and we have comparatively grown up in the shade. My child, you must not go out in the sun, you will get tanned, are the words of the mother; and such has been the case among all civilized nations. Whereas, the Indians, during the heats of summer, wander about comparatively unclothed, and expose themselves to the influences of the climate. What effect such a course of action would have, may in some measure be judged by the casual exposure of any one, during the heat of summer. As has been remarked, the skin alters its hue, and the man is tanned. May we not reason from such facts, that if man was constantly exposed, the nature of his skin would be changed; that it would accommodate itself in a degree to the change of circumstances.

Even the broad nostril of the negro may have its use in giving free egress to the vapor and heat generated in the lungs; and the contracted one of the white man, in protecting the lungs from exposure to the different temperatures that exist without and within. So that when the negroess told Mungo Park she could not conceive what woman would have such a thin-lipped, pale-faced, *peaked-nosed* man as he, her ideas rested upon an internal sense of propriety, rather than on mere fancy.

I hope your readers will here pardon me in digressing a few moments, while speaking of the hair, which distinguishes the African from the rest of his species, though it may not be necessary to allude to it, as for the most part it is well known that the hair on our lower animals is usually coarser on those of the south than on those of the North, and the same causes are at work that makes that of man to be the same; even as the vegetable is ranker at the South than at the North. But, whatever may be the

cause, who is there that has looked upon the flowing wig of by-gone days, does not see our fathers were not so prejudiced against this kind of head-dress, which is a faithful imitation of what a negro's would be if he should suffer his hair to grow long. Besides, is there any lady who does not look upon her own frizzets with satisfaction, to say nothing of the complaisant countenances of our young men who have just begun to sport a pair of whiskers, and who seem to think they ought to receive greater consideration on their account; and yet, if they will reflect, they must conclude there is very little difference between having a curly head, and a curly chin; and if man originated between the tropics, as is most universally concluded he did, we may suppose we have not been changed from one color to the other a sufficient length of time to get rid of all our fathers' characteristics.

G. W. F. MELLEEN.

MEDICAL MATTERS IN SOUTH EASTERN OHIO.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I am induced to send you the following, from the supposition that it would be gratifying to some of your readers to know more of the profession in this section of the country.

I will attempt to give you a brief (and will not be responsible for its being otherwise than an imperfect) description of the profession in this county. The county is situated in the south-eastern part of the Reserve, and consequently an eastern county in the State. Its northern extremity is twenty-six miles from Lake Erie, and its southern thirty from the Ohio river. Its extent is thirty-five miles from north to south, and twenty-five from east to west, containing thirty-five towns of five miles square. Its shire is Warren, situated on the Makoning river. This, and Gravel river, are the only rivers in the county of any importance. Neither of these streams produces much malaria. The situation of this county is such that we are subject to very frequent and great changes in the weather, the temperature often changing from 50 to zero from 12 o'clock, M. to the next morning. We have no more sure indication of rain than an extreme cold night in winter.

The febrile diseases are of the remittent type for the most part. The occurrence of intermittents or typhus is very rare, although diseases not unfrequently assume typhoid appearances. There is a large proportion of cases of pneumonia in the late autumnal and early vernal months. We are constantly consulted in cases of chronic hepatitis and duodenitis of an incipient character. Phthisis is a rapidly increasing malady, and is much more rapid in its consummation after being once formed, than in many other locations; this I have attributed to the sudden changes from the influence of the Lake, which influence extends much further on account of the level face of the country—there being but slight inequalities in the surface from the Lake to near the southern limits of the county.

Of the character of the profession I ought to speak with some reluctance. In the early settlement of the country (which extends but a few years back) but few were induced to locate here for the practice of medi-

cine. Yet there were some skilful practitioners among them, who would be an honor to the profession in any place, and who have worn out their best days as pioneers in this region. The arduous nature of the employment in such places cannot be easily imagined by those who are nurtured in the city or thickly-settled country—compelled, as they were many times, to travel considerable distances on foot on account of the roads being impassable for other conveyance. Strange as it may appear, a few, possessing the highest order of talents, have thus spent their palmy days in this region. But the majority of those who have assumed the name of *doctor* have been a heterogeneous mass—such as Thomsonians, Bechites, &c. &c., and often the people were unable to appreciate the difference between a physician of respectable acquirements and an empiric. Ten years ago there were no more than twelve regular physicians in this county. Since that time the number has increased to about thirty, and perhaps half the number of empirics.

The laws of this State are such, as you are probably aware, that all are allowed the exercise of their steam and water functions to their hearts's content, provided they kill no one outright in the operation. I think, however, their influence has been rapidly on the wane for the last five or six years. Their only ground of hope, which has been in prejudicing the minds of patients against the use of calomel and all chemicals as used by regular physicians, is taken from them, as the people have a fair opportunity of judging the merits of both.

A considerable portion of the inhabitants, who are emigrants from Pennsylvania and Virginia, within the bounds of my practice, have never before had an opportunity of employing a regular physician, and they would, perhaps, receive the first prescription with as much caution as they would the upas; but when the results proved salutary, there were none who appreciated more highly an attendance from regular physicians.

Bristol, Ohio, May 22, 1844.

C. B. CHAPMAN, M.D.

CASE OF SPONTANEOUS REMOVAL OF A CATARACT.

[We find the following case in the first No. (just published) of the New Orleans Medical Journal, reported by John F. Eustis, M.D., of New Orleans.]

Mr. R., a carpenter and joiner, *ætat.* 57, had cataract of the right eye fifteen years, and for five years past has not been able to see at all with this eye. A short time ago, he consulted a well-known oculist in New York, who advised an operation, which circumstances obliged him to defer. About six weeks ago, while on a visit to a friend, he took up a pair of double convex spectacles, and applying them to his blind eye, discovered, to his astonishment, that he could see and even read small print. He consulted a surgeon on this singular occurrence, who informed him, that by some means, which he could not account for, the cataract had become detached, leaving the pupil clear.

The eye now presents the following appearances. When at rest, the pupil is perfectly clear, and the contractions of the iris natural. The pos-

terior chamber is very large, and the iris slightly tremulous. When the ball of the eye is moved, there suddenly shoots up behind the iris an opaque lens, of grayish color, medium size, and perfectly circular. It sometimes rises so high as to close the pupil entirely, particularly if the head is inclined forwards; generally, it covers only the lower half of the pupil, and its motions are so rapid as not to interfere with vision any more than the act of winking. There is no pain in the eye, nor has there been any sign of inflammation. The patient is of very temperate habits, and is positive that he has never received a blow on the eye or head. He now uses this eye principally, on account of a cataract forming in the left eye.

From the size of the posterior chamber and the tremulous motion of the iris, I was at first inclined to account for the displacement of the lens by dissolution of the vitreous humor (*synchisis oculi*). But the globe of the eye is firm, shining and elastic, the sclerotic of its natural color, and the sight good. Moreover, the vacillating motion of the iris is no greater than we often see after the removal of a cataract. In the four weeks that have elapsed since I first saw this case, I cannot detect any change in the appearance of the lens; it is probable that it is still enclosed in its capsule, which protects it from the dissolving properties of the aqueous humor.

This case is interesting, because it proves that cataract may sometimes be cured spontaneously. By a sudden jerk of the head, a fall, a blow on the eye or the temple, the opaque lens may be torn away from its natural connections, and removed entirely out of the axis of vision, leaving the eye in the same condition as after the operation by depression. Whether a change has taken place in the ciliary body, by which the connections of the lens are softened and loosened, is a question which we are not competent to answer. It is probable that some such change has occurred, or the spontaneous removal of the cataract would be of more frequent occurrence. Whatever this change may be, the present case shows that it is not always of sufficient gravity to interfere with perfect vision.

As long as the opaque lens remains behind the iris, it gives no uneasiness; but if it should pass into the anterior chamber, it is liable to create so much pain and inflammation, as to require its removal. This may be done by incision of the cornea, as in the operation of extraction, or we may adopt the expedient of Demours, and attempt to return it to the posterior chamber, by laying the patient on his back, and dilating the pupil largely with belladonna.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON, JUNE 26, 1844.

Lectures in New York University.—Very ample preparations are making for the delivery of a splendid course of medical lectures the ensuing

autumn. The patronage of the State, which has recently been brought to aid the institution, seems to have infused new vigor into all departments, and created a lively hope of surpassing any former efforts. There is a beneficiary foundation, which is new to us—and which is worth the special attention of those students who would like to avail themselves of its provisions. The sons of clergymen and physicians, all other things being equal, are to be considered as having a preferred claim.

Vermont Medical College.—A historical catalogue of this thrifty school of medicine, embracing the alumni and honorary graduates since its foundation in 1830, has been lately published. In 1835 the legislature declared that the "trustees should have power to give and confer all such degrees, honors, diplomas or licenses, as are usually given or conferred in colleges or medical institutions." From the period of organization to the last term, 249 students received the degree of M.D., and 26 an honorary degree.

On the whole, taking into consideration the number of medical institutions in New England, this success is not a little surprising. Dartmouth College is only about twenty miles from the college at Woodstock; and Castleton Medical Institution, on the west side of the Green Mountains, also belongs to Vermont. At the north of them, both Montreal and Quebec have medical schools; while at the east, is Brunswick in Maine; Boston on the south, and Albany and Berkshire at the west. So numerous are these nurseries of medical science in the United States, that we have quite forgotten the number. At the close of 1839, there were twenty-three authorized to confer degrees; since that year, the creation of a number of new ones has taken place both in the Western and Southern States.

Cyclopædia of Practical Medicine.—Dr. Dunglison's revised edition of this good work, is certainly gaining upon the good will of the profession wherever its merits have been made known. Part V. is now out of press—and its regularity, and neat typographical execution, should ensure for it a rapid and extensive sale.

Medical books cannot be procured in any part of Europe at such reduced prices as in American cities. Those which sometimes cost two guineas in London, can be purchased in the United States for two dollars. At such prices, it is really inexcusable not to encourage those enterprising publishers who offer such important facilities.

Medical Society of Tennessee.—By some mishap, the pamphlet containing the proceedings of this Society, at the anniversary meeting in May, was mislaid some weeks. In the category of associations for the promotion of medical science, this is perhaps entitled to the premium banner on account of its energy. A singular but approved feature in its organization, is the thumb-screw system of making the members do something, whether they will or not. Thus Drs. Atkinson, Kelly, Martin, Irwin and Wharton, "were again called upon for their reports of cases"—being absent, they were fined \$2.00 each.

It is to be regretted that the Society wasted a thought on the old

humbug, animal magnetism, which has been taken by the horns in earnest. A committee of eleven were appointed to attend the experiments of Dr. Smith. If he asked them to dine at the conclusion of the farce, it doubtless afforded them more solid satisfaction than the nonsense of Mesmerism.

Dr. A. H. Buchanan, of Nashville, was re-elected president. In a paper read by Dr. Maulone, it was stated that a lady anticipated some accident to the fœtus in utero, in consequence of witnessing an accident on the head of one of her sons. The product of pregnancy was an encephalous monster.—Active measures are operating for the collection of a fine anatomical museum, on the voluntary plan. Many curious and rare specimens have already been deposited at Nashville. Dr. Winston, of Nashville, was appointed orator for 1845. There were some communications and orders submitted to the action of the Society, which may possibly receive a further notice, should there be room in some succeeding No. of the Journal.

Dental Mirror.—In the thriving town of Lynn, Mass., a monthly quarto sheet is published, bearing the above name, under the editorial conduct of J. R. Dillingham, a practical and scientific dentist. One of its leading objects appears to be to enlighten the public on the subject of dentistry, expose the trickery and imposition of quacks, and point out the only true method of managing the teeth, from infancy to age. From the circumstance that there is another similar paper sent abroad from Philadelphia, and a valuable quarterly published by the American Society at Baltimore, the circulation may never equal its merits. However, those who read it can no longer be ignorant of the devices of unprincipled, uninformed dentists, or the value of the services of one scientifically educated to the practice of the art.

Progress of Imposition.—A shop is opened in Boston for the especial sale of an anti-consumptive medicine. It is represented to be the discovery of a Dr. Halstead, of the State of New York. To give it an air of importance, the handbill declares he "has discovered a remedy for curing consumption in its first, second and third stages. Its fourth is incurable," and therefore the benevolent sage has no preparation for that unlucky segment of the malady.

In walking through the principal streets of Boston, the afflicted are met at every corner by the most seductive advertisements of remedies for every human infirmity. There is such an abundance of testimony, too, of marvellous cures, when the forlorn patient was bereft of all hope under regular, that is, scientific treatment by honest, experienced physicians, that certain classes of men and women are persuaded against their own judgment, to dip deeply into the irresponsible nostrums of quack medicine dealers. Unrestrained by law, and the field being both open and profitable to all who have the hardihood to embark in the trade of selling specifics, conscience being smothered in an envelope of profits, these adventurers are constantly on the increase.

References are ordinarily made to gentlemen in official stations and clergymen, who not unfrequently lend their names to oblige a friend, and thus the unreflecting consumers of patent medicines feed upon such mixtures as the balm of life. We have no expectation of relief, since the

spirit of the age is decidedly in favor of this system of sponging. People love to take drugs. Some prefer it in quart bottles, and others in the form of homœopathic pellicles, five thousand to the grain. Medicine they will have, and they seem to think him the best practitioner who disposes of the greatest number of doses in a given time, whether good or bad, great or small.

Medical Intelligence from the West.—In consequence of the retirement of Dr. Cooke from the Louisville Medical Institute, the number of chairs has been reduced to seven, and the prospects for next winter are represented as highly flattering. The summer class is small; still they are determined to see what they may be able to do towards building up a summer school.

Professor Drake is still travelling at the South. When last heard from, he was about to depart from New Orleans for Natchez and Vicksburg, where he will probably return some time during the latter part of June. His long-promised work on western diseases is still in embryo, and it is feared a long time will elapse before it will be ushered into existence.

Professor Caldwell enjoys excellent health, says a friend; and notwithstanding his advanced age, bids fair to outlive half the present generation of medical men. While others are growing old, he seems literally to be in a state of re-juvenescence. No one, not even his most intimate friends, know his real age. Every one who is acquainted with him puts it down at 80. Indeed, it cannot be short of this, and may be over. Be this as it may, he is an extraordinary man, whose like the American profession will not soon see again.

Professor Bartlett's resignation of his chair in Transylvania University is greatly regretted by the profession at the West, who had formed a most favorable opinion of his talents and attainments, as well as of his ability as a teacher and a writer. Lexington will have much cause to regret his retirement from her school.

Professor Cross resigned his chair two or three weeks ago, but not without some hope, says report, of being re-appointed. *Nous verrons.* There is a rumor that Dr. George McClellan has signified his willingness to accept the chair of anatomy, now held by Dr. Dudley, should it be offered to him; which is not very likely.

Dr. Gross is spending all his leisure time upon a second edition of his *Elements of Pathological Anatomy*, which will be brought out next summer. The additions will exceed one hundred pages. His determination is to make the new edition as complete as possible, and to issue it in superior style, let it cost what it may. The probability is that Barrington & Haswell, of Philadelphia, will be the publishers.

Lunatics in Alabama.—Neither Mobile nor the State of Alabama has a hospital for the insane. It would be superfluous to say that one is greatly needed. Eighteen months ago a gentleman was carried by his friends from the interior of this State to Ohio, and had to be brought back, because he could not for want of room be admitted into the excellent asylum at Columbus. Why do not the respectable and influential physicians of this State bring the subject before its general assembly; and continue pressing it on that honorable body, till an appropriation for

a State institution be made? But it should not be established in Mobile, on account of the distance from the northern boundaries of the State, and because its inmates might be invaded by yellow fever. Moreover, if it be erected at the seat of government, it will be more likely to receive the fostering care of the legislature, than if at a distance, where its touching scenes and precious blessings would not display themselves to those who are to vote the annual supplies. I do not hesitate to predict, that if this subject should be forcibly, that is fairly, presented to the general assembly, the second session after such a presentation would afford an appropriation with which to commence an edifice, equal to the wants and worthy of the character of this respectable State.—*Dr. Drake's Travelling Letters in Western Journal.*

Yellow Fever in Mobile.—Under the old Spanish and French regime, when Mobile was a village without wharves or ships, save an occasional lugger, when new comers were seldom seen in the crooked and narrow streets, and the people preferred fiddling and dancing to clearing off the drift and filth, which lodged in the margin of the stream, yellow fever never made its appearance. The first epidemic of which I am able to collect any information was in 1819, since which it has recurred in 1821, '25, '27, '29, '37, '39, '42 and 1843, appearing sporadically in many other years. Of all these epidemics, I have by the kindness of the physicians and other gentlemen, collected a considerable number of facts. In reference to their origin, there is no diversity of opinion. I have not yet met with the first believer in importation. However they may disagree as to the mode of domestic origin, all concur in it is a reality. In reference to importation, Mobile is peculiarly situated, as the waters of the Bay are too shallow to admit of the approach of ships to the city, all of which, at least all the larger, lie 20 or 30 miles below, just within the Bay. I am far from considering the unanimity of opinion on this subject as conclusive; but it must be admitted to have in it the value of a fact; and I cannot but regard it is remarkable that, with an epidemic recurrence, on an average, every three years, if it were imported by ships which cast anchor at such a distance from the city, its introduction from them should never have been detected.—*Ibid.*

Extensive self-inflicted Injury of the Throat.—In the last number of the Dublin Medical Press, Dr. Jameson describes the following wound inflicted on herself by a female:—

"It was fully three inches in diameter, and apparently sufficiently large to admit the shut or grasped fist. At the upper portion you could perceive the inferior part of the pharynx drawn up to a level with the chin, quite pendulous, having anterior to it the cut portions of the thyroid cartilage, which were white and shining.

"In the centre the outline of some of the bodies of the cervical vertebræ could be distinguished.

"At the lower portion the trachea was drawn to a level with the top bone of the sternum, which was moved up and down at each inspiration, and constantly emitting a large quantity of bloody frothy mucus through a circular opening about three quarters of an inch in each diameter during expiration, producing occasional efforts at coughing.

"The sides of this wound were bounded by the anterior edges of the

sterno-cleido-mastoid muscle, underneath which the carotids could be felt feebly beating in their relative situations."

The whole of the cricoid and a portion of the thyroid cartilages were found on the floor with the bloody razor. The patient survived thirty-six hours. This case is interesting in a medico-legal point of view. Had this patient been found dead, could such a wound have been supposed to have been inflicted by her own hand?

Variola Developing Itself on Vaccinated Persons.—In the *Annali Universali di Medicina*, M. Lassetti published the following remarks made in the *Hopital Majeur de Milan*, in 1838. Of 420 cases of variola after vaccination, three classes were established: those in which cicatrices were normal; those in which they were somewhat incomplete; and those in which they were very imperfect. The first contained 231 cases; the second 124; and the third only 65. The variola presented the following varieties:

Eruption.	Confluent.	Distinct.	Very Distinct.	Total.
Normal cicatrices	83	91	57	231
Incomplete	53	49	22	124
Very incomplete	18	28	19	65
				420

As to the result according to the number of pustules,

Eruption.	Confluent.	Distinct.	Very Distinct.	Total.
One cicatrix	30	30	16	76
Two cicatrices	36	35	22	93
Three "	40	38	20	98
Four or more do.	48	68	40	153
				420

As to age, in 1411 cases observed in 1837 and 1838, after vaccination, the result was: under 5 years old, 130; from 5 to 10, 101; from 10 to 15, 151; from 15 to 20, 303; from 20 to 25, 282; from 25 to 30, 216; from 30 to 35, 160; from 35 to 40 and above, 68; total 1411.—*Times*.

Medical Miscellany.—Dr. Lugenbeel, a young man, is now the Colonial Physician of Monrovia, the American settlement in Africa. The coast fever is fast losing its terrors, and, in fact, never ought to have been regarded with such fear as it formerly was by the early emigrants.—Dr. J. L. Day and Dr. J. W. Johnson are on a visit to this country from Monrovia.—Drs. John L. Burt and John F. Barton, have been appointed Assistant Surgeons in the U. S. Navy.—Dr. Joseph B. Wright has been appointed a Surgeon of the U. S. Army.—D. S. P. Hullihen, of Wheeling, Virg., lately succeeded in giving perfect vision to a lady 20 years of age, who was born blind.—Dr. Anson Jones, of Texas, is a candidate for the presidency of that republic.—Dr. R. A. Merriam, of Topsfield, Mass., is appointed a special commissioner for the county of Essex.—Dr. Hitchcock, U. S. Marshal, of Iowa, has been imprisoned at Nauvoo, by the Mormons.—Dr. Stephen B. Sewall has been appointed Postmaster at Somerville, Mass.

Number of deaths in Boston for the week ending June 22, 39.—Males, 20; Females, 19.

Of consumption, 8—scarlet fever, 7—inflammation of the stomach, 1—croup, 2—teething, 2—dropsy in the brain, 3—infantile, 3—catarrh, 1—lung fever, 1—disease of the heart, 1—fits, 1—marasmus, 1—old age, 2—canker rash, 1—inflammation of the lungs, 1—dropsy, 1—inflammation of the bowels, 1—throat distemper, 1—typhus fever, 1.

Under 5 years, 21—between 5 and 20 years, 6—between 20 and 60 years, 9—over 60 years, 3.

Table of the Cases of Strangulated Hernia treated in St. George's Hospital in 1842 and 1843. Read before the Royal Medical and Chirurgical Society, By PRESCOTT HEWETT, Curator of St. George's Pathological Museum.—The author began by giving a statistical account of thirty-four cases operated upon for strangulated hernia. The result of these operations was twenty-five recoveries and nine deaths. The sac was opened in every case; and in six cases a portion of omentum was removed. Five of these cases recovered, and one died of disease of the brain a few hours after the operation.

The author then gave, at full length, some of the cases which presented marked points of interest, and the *post-mortem* examination. Among the cases may be noticed Case 2, in which the gut, after having been strangulated for seven days, was, by the taxis, reduced with the sac. The symptoms of strangulation continued; the hernia fortunately re-appeared in the groin during a fit of vomiting; the operation was performed, and the patient was discharged from the hospital eighteen days afterwards.

Reference was then made to four cases, in all of which the gut was enveloped by a complete sac, with a narrow neck, formed by the omentum. In relation to those interesting subjects, some quotations were given from Sir A. Cooper's and Mr. Lawrence's works, proving how *very rarely* these cases are met with. The author then proceeded to make some detailed observations on these omental cases, and on their formation, which he referred to three principal varieties. In three of the cases the hernial and omental sacs were more or less extensively united to each other. In the fourth case the omental sac was lying loose in the cavity of the hernial sac. Large quantities of adipose tissue were, he said, sometimes deposited in the folds of the omentum, forming the second sac; and he referred here to one of the cases, in which the walls of the omental sac were more than an inch thick, as shown by the preparation exhibited at the meeting. The neck of these omental sacs, the author remarked, sometimes becomes the *sole* cause of the stricture: of this a well-marked example was given at full length. This circumstance was mentioned as an additional argument against the practice of reducing the hernia without opening the sac.

The author concluded his observations upon these cases, by adverting to the possibility of an alarming hæmorrhage taking place *into the cavity of the abdomen*, after the division of the *neck* of these omental sacs.

After some remarks upon the relative frequency of the strangulation of femoral herniæ, the numbers of which were given in the table, he made some observations on the "opening of the sac," which he, on various accounts, strongly advocated in the majority of cases. The paper was concluded by some remarks on the removal of the omentum, and the various modes of applying ligatures in these cases.—*London Medical Gazette.*

Case of Intussusceptio.—M. Staal, a military surgeon in Stangelsoe, has recorded a curious case of intussusceptio, where the patient, after stercoraceous vomiting, was completely relieved by an injection of nearly four grains of extract of belladonna in gruel. This produced narcotic symptoms and speedy fecal discharge. The patient recovered in two days.—*Oppenheim's Zeitschrift*, Feb. 1844, p. 258.